



City of New York  
Department of Environmental Protection  
Bureau of Engineering Design & Construction

**MONTHLY PROGRESS REPORT**

July 2017

(June 17 to July 17)

for

Administrative Settlement Agreement and Order  
for Remedial Design, Removal Action and Cost Recovery  
(Index No. CERCLA-02-2016-2003)

and

Administrative Order for Remedial Design  
(Index No. CERCLA-02-2014-2019)

Dated: July 17, 2017

## Table of Contents

<b>Table of Contents .....</b>	<b>ii</b>
<b>1.0 NYC Gowanus Superfund Program Status Update .....</b>	<b>1</b>
1.1 Red Hook CSO Facility .....	1
1.2 Owl's Head CSO Facility .....	4
1.3 Carroll Street High Level Storm Sewer Pilot and Monitoring Program .....	6
1.4 First Street Turning Basin Restoration Design .....	6
1.5 Pilot Sponge Park .....	7
1.6 In-Canal Remedial Design .....	8

## List of Tables

Table 1 - Red Hook CSO Facility - Milestone Status Summary .....	1
--	---

## 1.0 NYC Gowanus Superfund Program Status Update

### 1.1 Red Hook CSO Facility

The City of New York (City) and the United States Environmental Protection Agency (EPA) entered into an Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery (Index No. CERCLA-02-2016-2003) (Settlement Agreement), which became effective June 9, 2016. The Settlement Agreement provides that the City shall complete the Remedial Design (RD) for the Red Hook Combined Sewer Overflow (CSO) retention tank, which was selected as a component of the remedial action for the Gowanus Canal Superfund Site in EPA's September 27, 2013 Record of Decision (ROD). The RD of this CSO Tank, designated the "RH-034 Tank," was previously a requirement of an EPA Administrative Order issued May 28, 2014 (Index Number CERCLA-02-2014-2019) (RD UAO). A summary of the Settlement Agreement milestones and the status of each is set forth below, followed by a narrative description of work performed and anticipated and related issues.

**TABLE 1 - RED HOOK CSO FACILITY - MILESTONE STATUS SUMMARY**

<b>Milestone Description</b>	<b>Deadline</b>	<b>Status</b>
<i>Commence Environmental Impact Statement (EIS)</i>	<i>April 1, 2016</i>	<i>Completed</i>
<i>Issue Draft EIS/Certify ULURP</i>	<i>October 1, 2017</i>	<i>In Progress</i>
<i>Complete ULURP</i>	<i>May 1, 2018</i>	
<i>File Petition to Condemn</i>	<i>June 16, 2018</i>	
<i>Acquire Title</i>	<i>24 months after File Petition to Condemn or April 30, 2020, whichever is earlier</i>	
<i>Complete CP-1 Design Package</i>	<i>June 30, 2017</i>	<i>Completed</i>
<i>Complete CP-02 Design Package</i>	<i>April 30, 2019</i>	<i>In Progress</i>
<i>Complete CP-03 Design Package</i>	<i>September 30, 2019</i>	<i>In Progress</i>
<i>Issue Notice to Proceed (NTP) to Contractor for CP-1</i>	<i>Not later than five months after acquisition of Parcels VI and VII, but in any event not later than May 1, 2020</i>	
<i>Mobilize for CP-1</i>	<i>Not later than 60 days after CP-1 NTP or 60 days after acquisition of Parcels VI and VII, whichever is later</i>	
<i>Complete CP-1 Construction</i>	<i>No later than 10 months after commencement</i>	
<i>Commence procurement to perform a response action at Parcels VI and VII within the footprint of the RH-034 Tank and any associated conduit areas</i>	<i>No later than the date on which National Grid commences response action on Parcels VI and VII outside the RH-034 Tank footprint</i>	
<i>Complete procurement for response action contractor</i>	<i>Within 12 months of commencement</i>	
<i>Perform a response action at Parcels VI and VII within the footprint of the RH-034 Tank and any associated conduit areas</i>	<i>Issue NTP within 30 days of completed National Grid response action; or within 30 days of completion of procurement, whichever is later</i>	
<i>Complete response action construction</i>	<i>Within 24 months of NTP</i>	

### **Work Performed Last Period**

- DEP continued preparation of preliminary City Environmental Quality Review (CEQR) and Uniform Land Use Review (ULURP) documentation for the RH-034 Tank Designs.
- DEP continued to coordinate with owners and other City Agencies for property acquisition.
- DEP continued to communicate and coordinate with the City Department of Parks and Recreation and with private property owners to advance design activities.
- DEP continued its preparation of technical memoranda and conducted internal technical workshops to progress the facility planning and design.
- DEP and EPA held a technical workshop on June 29, 2017. DEP provided a project update and presentation focused on resolution of proposed design details required to proceed with the basis of design.
- DEP submitted the CP-1 100% Design for the RH-3 and RH-4 sites to EPA on June 30, 2017 in accordance with the Settlement Agreement Milestone Schedule.
- DEP submitted a proposed scope of work to EPA to evaluate the potential impacts of locating the Tank Discharge at RH-038 / Degraw Street.

### **Field Activity**

- None

### **Analytical Data**

- Received validated data from PDI investigation at Parcels II, VI and VII.

### **Anticipated Progress Next Period**

DEP will:

- Continue preparation of CEQR and ULURP documentation for the RH-034 Tank and continue development of the Draft EIS.
- Continue to coordinate with other City Agencies and property owners on property acquisition and access.
- Continue preparation of technical memoranda and conduct internal technical workshops to progress the facility planning and design.
- Conduct an evaluation of the potential impacts of the Tank Discharge Location at RH-038 / Degraw Street.
- Continue to coordinate with private property owner and National Grid to complete the PDI work at Parcel VII.
- Prepare to mobilize for the second phase of geotechnical investigation work to inform the detailed design of the support of excavation and superstructure.
- Prepare responses to comments related to the Draft Scoping Document for the Project EIS.
- Schedule a follow up Technical Workshop with EPA in September 2017.

### **Issues Encountered or Resolved and Efforts to Mitigate Delays**

Below is a list of issues encountered during the design, including unresolved technical issues that could impede progress and potentially delay the schedule for the RH-034 Tank RD. If left unresolved, these issues could have a significant impact on the project schedule. A description of each issue, potential schedule impacts, efforts to mitigate delays and recommendations for resolution are provided below.

- **Sequencing of National Grid Response Action**

The Settlement Agreement specifies work to be performed by National Grid, including but not limited to performing a Response Action at Parcels VI and VII outside the footprint of the tank. On May 11, 2017, EPA issued a Unilateral Administrative Order to National Grid (NG UAO) for the construction of a bulkhead along the Canal (including Parcels VI and VII), and to design and build a permanent groundwater treatment system behind the bulkhead. However, the NG UAO does not compel National Grid to perform the remaining work at Parcels VI and VII, and DEP's work could be delayed if National Grid does not perform their work in coordination with DEP's schedule. It is DEP's understanding that EPA and National Grid are contemplating an additional Order for the remaining work. However, any inconsistencies between a potential Order to National Grid and the Settlement Agreement would bring about significant coordination and sequencing challenges causing delays in the design and implementation of a Response Action at Parcels VI and VII.

- **Scope and Design for Response Action**

Understanding the nature and extent of contamination at the site will allow DEP and EPA to perform CEQR, develop the EIS, establish subsurface conditions for geotechnical design, evaluate treatment technologies and design the response action for excavation within the footprint of the tank. These detailed design criteria cannot be established until that data is made available to DEP. This data must be produced in time to meet the scheduled mandated by the Settlement Agreement. The collection of this data is beyond DEP's control, as this activity is required to be undertaken by National Grid.

To further the data collection effort, DEC has directed National Grid to prepare and implement a PDI Work Plan for the RH-034 tank site (Parcels VI and VII). National Grid has completed their PDI Work as outlined in the Plan for Parcel VI. At Parcel VII, National Grid was unable to complete the PDI Work. The owner needs to grant access for National Grid to complete the remaining work.

DEP is proceeding with the design based on existing data and data forthcoming from the work completed at Parcels II and VI, but failure to complete the work at Parcel VII by Fall could result in delays to the design schedule. DEP continues to pursue access to perform this work in August.

Further, the May 11, 2017 NG UAO requires National Grid to design and build a permanent groundwater treatment system, but does not specify whether an active or passive system is to be utilized. National Grid's design of the groundwater treatment system could require the construction of additional structures on Parcels VI or VII, which could impact DEP's design for the RH-034 tank.

DEP is continuing its review of the NG UAO to assess other potential impacts, if any, to DEP's work.

- **Coordination with Design of Cut-off Wall**

At the July 20, 2016 technical workshop, EPA directed DEP to proceed with design of the RH-034 Tank assuming a 50-ft setback from the existing Canal bulkhead. DEP is advancing the design to the extent possible based on this direction. The May 11, 2017 Administrative Order to National Grid requires construction of a cut-off wall that is over 200 feet longer than the length of the current design, which DEP used to model the potential groundwater mounding impacts of the cut-off wall.

Accordingly, DEP will be required to reevaluate the potential groundwater mounding impacts based on the longer version of the cut-off wall.

The NG UAO does not specify or limit the upland distance for installation of support structures for the cutoff wall. Future changes in the setback distance or other unanticipated design changes will impact the design schedule. In addition, engineering analyses will need to be performed as soon as a final cut-off wall design is established by National Grid and/or EPA to ensure coordination between the design of the support of excavation, underground structures and aboveground features with the cut-off wall.

At the July 29, 2017 technical workshop, EPA stated that the 50-ft setback remains and it is unlikely tiebacks will be used in the RH-3 section of the Canal.

- **Location of the RH-3 Facility Overflow Location**

In a September 2016 technical workshop, DEP presented to EPA the recommended RH-3 tank overflow at the end of DeGraw Street to provide operational and constructability benefits and greater protection for the Canal. At that meeting, EPA indicated its preference for locating the new tank overflow outfall at or very close to the existing RH-034 outfall. DEP agreed to evaluate the feasibility of this alternative as DEP continued the hydraulic analyses required to form the basis of design for the tank.

At the July 29, 2017 technical workshop, DEP presented the results of a technical analysis proving that, because of existing sewer system hydraulics and head losses through the tank, rerouting the effluent back to the RH-034 outfall would cause CSOs at the outfall before tank is filled, restricting flow to the tank and resulting in a lower level of CSO reduction and treatment than possible with an optimized design. Further, from a constructability perspective, installing an overflow point at RH-038 would allow contractors to use the tank for storage and bypass of overflow during construction, eliminating the need for bypass pumping of significant volumes of CSO during construction of the new RH-034 regulator and influent conduit.

DEPs recommendation for the basis of design remains to locate the tank overflow at the existing RH-038 outfall on Degraw Street. In order to maintain the design schedule in the Settlement Agreement, DEP must proceed with an established basis of design by August 14, 2017. DEP plans to proceed with the design of the outfall at this location and has also agreed to perform a hydrodynamic modeling analysis to further demonstrate to EPA why this is the most technically sound engineering approach for design.

## **1.2 Owl's Head CSO Facility**

The design of the Owl's Head CSO Facility, designated the "OH-007 Tank," is a requirement of the RD UAO. The UAO requires the City to complete the RD for the Owl's Head CSO retention tank, which was selected as a component of the remedial action set forth in the ROD. A narrative description of work performed and anticipated and related issues is set forth below.

### **Work Performed Last Period**

- DEP continued preparation of technical memoranda and conducted internal technical workshops to progress the facility planning.
- DEP submitted the Draft PDI Work Plan that defines the scope and methodology for activities needed to characterize soil and/or groundwater on the OH-007 Tank site to EPA on April 14, 2017. DEP received EPA comments on May 10, 2017. DEP sent EPA responses to those comments on May 24, 2017.

- DEP continued to coordinate with DSNY for access to the property to perform pre-design investigation activities.
- DEP continued reaching out to private property owners to obtain access for pre-design investigation activities.
- Coordinated with Gowanus Canal Conservancy and DSNY on design considerations for coordination with new CSO Facility Design.

### **Field Activity**

- DEP continued pre-design investigation activities on June 12, 2017 at the DSNY property on 2<sup>nd</sup> Avenue.

### **Analytical Data**

- Samples were collected from environmental borings taken at 6 locations to varying depths on the north east side of the property. Coal tar was observed in two borings on the east end of the property. Samples were sent to the lab for analysis.

### **Anticipated Progress Next Period**

DEP will:

- Continue to coordinate with DSNY and private property owners for access to perform facility planning and design activities.
- Continue PDI work, surveys and bulkhead investigation at DSNY property.
- Continue to coordinate with Gowanus Canal Conservancy and DSNY on design considerations for coordination with new CSO Facility Design.
- Continue to draft work plans, technical memoranda, and conduct internal technical workshops as part of the facility planning process.
- Prepare request for proposals for Owl's Head CSO Facility Design Services.

### **Issues Encountered or Resolved and Efforts to Mitigate Delays**

Below is a list of issues encountered during the design, including unresolved technical issues that could impede progress and potentially delay the schedule for the OH-007 Tank RD. If left unresolved, these issues could have a significant impact on the project schedule. A description of the issue, potential schedule impacts, efforts to mitigate delays and recommendations for resolution are provided below.

- **Unilateral Administrative Order Remedial Design Completion Date**

The Administrative Order for Remedial Design, Appendix B – Tank and Turning Basin Statement of Work, Section V, states that the Remedial Design of the Retention Tanks and associated infrastructure in the vicinity of the RH-034 and OH-007 CSO outfalls shall be completed no later than three (3) years from the Effective Date of the Order.

In 2016, DEP and EPA set new design milestones specifically for the Remedial Design at the RH-034 outfall in the Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery. DEP and EPA have not negotiated achievable milestones for the Remedial Design at the OH-007 outfall. As indicated to EPA on multiple occasions, DEP will not meet the milestone date for the OH-007 outfall set forth in Appendix B of the Unilateral Order.

DEP provided a proposed schedule for the Remedial Design at OH-007 to EPA in the Remedial

Design Work Plan (RDWP) submitted on August 31, 2016. DEP continues to proceed on the path set forth in the schedule proposed in the RDWP.

- **Access to Private Property for Pre-Demolition Surveys**

DEP is attempting to gain access to the private properties at OH-4. Unrestricted access will allow DEP to gather data to inform CP-1 design, develop an accurate cost estimate, schedule and bid package.

Failure to gain access will require DEP to make conservative assumptions about the layout, materials and characteristics of the buildings and operations on the properties in order to progress the CP-1 design.

DEP will utilize access to the adjacent City owned property to limit data gaps. DEP will continue to attempt to work with these owners to gain access.

### **1.3 Carroll Street High Level Storm Sewer Pilot and Monitoring Program**

DEP will conduct a stormwater treatment pilot and monitoring program in connection with the Phase I Carroll Street High Level Storm Sewer Separation (HLSS) project at the Gowanus Canal. This program includes installation of two hydrodynamic separator units, evaluation of alternative treatment technologies, sampling and data collection, flow monitoring, data analysis, and reporting. It also includes similar sampling and data collection, flow monitoring, data analysis, and reporting for three vortex units installed at the Lightstone development, also known as 363-365 Bond Street.

#### **Work Performed Last Period**

- New York City Department of Design and Construction (DDC) continued the field coordination and change order processing for the installation of the pilot vortex separator units.

#### **Field Activity**

- DDC's contractor continued construction work on the HLSS project, including relocation of water mains and installation of the new sewer.

#### **Analytical Data**

- No data analysis performed this period.

#### **Anticipated Progress Next Period**

- DDC's contractor will continue installation of the new sewer.

#### **Issues Encountered and Efforts to Mitigate Delays**

At this time, there are no significant technical issues that could impede progress and potentially delay the schedule for implementation of the stormwater treatment pilot and monitoring program.

### **1.4 First Street Turning Basin Restoration Design**

The design of the restoration of the former First Street Turning Basin is a requirement of the RD UAO. This design was selected as a component of the remedial action set forth in the ROD. A narrative description of work performed and anticipated and related issues is set forth below.

#### **Work Performed Last Period**



- DDC coordinated with the City Law Department and property owners on signing the site access agreements for the properties at 420 and 430 Carroll Street, as well as 312 and 330 3<sup>rd</sup> Avenue. These agreements have been signed as of July 13, 2017.
- DDC prepared individual work plans for field activities and submitted to EPA for review and comment via DEP. To date, the final version of the Topographic Survey, Tree Inventory, Adjacent Building Survey, Underwater Bulkhead Inspection, Environmental Investigation, Geotechnical Investigation work plans, as well as the Archeological Monitoring Plan have been accepted by EPA.
- DEP and DDC attended a technical meeting with EPA on July 10, 2017 to discuss project schedule. EPA requested the City to complete the remedial design of the former First Street Turning Basin by mid January of 2018, and provide an updated project schedule to reflect the updates.
- EPA assisted with obtaining site access to the Powerhouse and the TBD Five Management properties as of July 14, 2017.

#### **Field Activity**

- No field activity this period.

#### **Analytical Data**

- DDC completed the Underwater Bulkhead Inspection Summary Report on June 9, 2017.

#### **Anticipated Progress Next Period**

- Send revised project schedule to EPA on July 17, 2017.
- Begin field activities, including surveys, utility clearing, environmental and geotechnical investigations on July 18, 2017.

#### **Issues Encountered and Efforts to Mitigate Delays**

At this time, there are no outstanding technical issues that could impede progress and potentially delay the schedule for implementation of the former First Street Turning Basin Restoration design.

## **1.5 Pilot Sponge Park**

DEP has installed a Pilot Sponge Park at the intersection of 2<sup>nd</sup> Street and the Canal. The pilot project is intended to divert and filter surface water runoff and create a publicly accessible open space. A narrative description of work performed and anticipated and related issues is set forth below.

#### **Work Performed Last Period**

- DEP's Monitoring Team completed the monitoring of two more storms; bringing the total thus far to three.

#### **Field Activity**

- Samples from the two storms monitored during this period have been sent to the lab for analysis.

#### **Analytical Data**

- Data from the May 29<sup>th</sup> sampling event indicated that the water had flowed in from the Canal through the outlet.

### **Anticipated Progress Next Period**

- DEP will continue performance monitoring.
- DEP will allocate funds for the additional required laboratory testing.

### **Issues Encountered and Efforts to Mitigate Delays**

- The monitoring team has noticed water from the Canal may be entering the Sponge Park through the check valve during high tide. This will be further investigated to determine if the valve needs to be repaired or replaced. In the meantime, any monitoring will take place during mid and low tides.

## **1.6 In-Canal Remedial Design**

Participation as a work party in the In-Canal Remedial Design is a requirement of the RD UAO. This design was selected as a component of the remedial action set forth in the ROD. The City continues to participate as a Work Party in the In-Canal Remedial Design and to coordinate potential remedial design interfaces with City property such as bridges, bulkheads and the 1st Street Turning Basin. A separate detailed monthly report for this work is issued by National Grid on behalf of the work parties.